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EXAMINER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### **DETAILED ACTION**

The amendments and arguments filed Mar. 23, 2009 are acknowledged and have been fully considered. Claims 1-76, 81-82, 95-96, 108, and 162-164 are cancelled; claims 77-80, 83-94, 97-107, 109-161, 165, and 174 are amended; claims 165-174 are withdrawn. Claims 77-80, 83-94, 97-107, 109-161, 165-174 are now pending. Claims 77-80, 83-94, 97-107, and 109-161 are the subject of this Office Action.

### ***Election/Restrictions***

The finality of the Restriction Requirement is maintained. The claims are properly rejected as obvious over the prior art references discussed below. Thus, the claims do not share a special technical feature that defines a contribution over the art and are subject to restriction.

### ***Information Disclosure Statement***

References lined-through on the information disclosure statement(s) were not considered because they were not provided or were not provided in English.

### **OBJECTIONS/REJECTIONS WITHDRAWN**

All rejections of claims 81-82, 95-96, 108, and 162-164, are moot in light of the claim cancellations.

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The rejection of claims 77, 82, 108, 115, and 117 under 35 U.S.C. 112, 1<sup>st</sup> paragraph, lack of enablement, is withdrawn in light of the claim amendments.

The rejection of claims 104-107 under 35 U.S.C. 112, 2<sup>nd</sup> paragraph regarding the limitation "weight of active material of polymer relative to the total weight of the composition" is withdrawn, in light of the claim amendments.

The rejection of claims 77-80, 82-84, 86-94, 98-103, and 159-164 under 35 U.S.C. 102(b) over MOUGIN is withdrawn in light of the claim amendments.

The rejection of claims 77-80, 82-84, 86-94, 98-141, 144-147, and 150-164 under 35 U.S.C. 103(a) is over ANTON and KANTNER is withdrawn in light of the claim amendments.

The rejection of claims 77, 81, and 85 under 35 U.S.C. 103(a) is over ANTON, KANTNER, and GALLEGUILLOS is withdrawn in light of the claim amendments.

The rejection of claims 77 and 95-97 under 35 U.S.C. 103(a) is over ANTON, KANTNER, and RAETHER is withdrawn in light of the claim amendments.

#### ***OBJECTIONS/REJECTIONS MAINTAINED***

The rejection of claims 77-80, 83-94, 97-107, and 109-161 under 35 U.S.C. 112, 2<sup>nd</sup> paragraph regarding the limitation "mean gloss at [various #]°..." is maintained, as discussed below.

The double patenting rejections of record have been maintained as no action regarding these rejections has been taken by applicants at this time.

***Claim Rejections - 35 USC § 112 (2<sup>nd</sup> Paragraph)***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 77-80, 83-94, 97-107, and 109-161 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 77, 90, 93, 94 recite the "mean gloss at 20°..." and claims 91, 92 recite the "mean gloss at 60°..." The units of degrees are undefined. Is this limitation a temperature? If so, is it in units of °C, °F, °K or some other temperature scale? Alternatively, this limitation could be referring to an angle. This term is not defined by the claim, the specification does not provide a sufficient standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is noted that the portion of the specification dealing with the term "mean gloss" does not correct this ambiguity. For example paragraph [0018] states that the deposit is left to dry for 24 hours at a temperature of 30° C., and the gloss at 20° is then measured. It is noted that measurement of "mean gloss" in this way is not an industry standard. As such it would not be readily apparent to one of ordinary

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skill in the art that the recitation of 20° is intended to be a temperature. Thus, one of ordinary skill in the art would not know how the mean gloss must be measured to meet this limitation. Since one of ordinary skill in the art could not be expected to make a reasonable distinction in the absence of further definitions and/or guidance in the specification, the metes and bounds of these claims are indefinite.

If applicants contend that the recitation of 20° is intended to be, for example, a temperature, applicants must show that one skilled in the art would have understood that this choice, and not another, was surely intended.

### ***Response to Arguments***

Applicants' arguments have been fully considered but are not persuasive. Applicants assert that it is clear to a skilled artisan that the limitation refers to an angle.

Other than asserting their position, applicants provide no objective evidence to indicate that an ordinary artisan would know that the recited degree is an angle and not, for example, a temperature. Even if, as applicants assert, an artisan "should recognize the mean gloss of the same material differs when measured at different temperatures, and it should be always defined at certain angle", there is nothing to indicate that 20° or 60° is an industry-accepted defined angle that is well-known in the art. An artisan could also recognize that the mean gloss of the same material can differ at different temperatures and could measure the mean gloss at 20°C or 60°C *at a arbitrarily defined angle other than 20° or 60°*.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

### **U.S. Patent Application No. 10/528,698**

Claims 77-80, 83-94, 97-107, and 109-161 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 65-136 of copending Application No. 10/529,698. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '698 claims renders obvious that of the instant claims. The difference between the two claim sets is that the '698 claims do not recite a mean gloss or transfer index of the block polymer. However, the '698 claims recite that the polymer can form a resistive index of greater than or equal to 80%. Both of these limitations are drawn to the transfer resistance of the composition, and indicate that each is to resist transfer. Since each application recites the same monomer components and architecture, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the '698 application would meet the instant limitations and vice versa. It is noted that '698 claim 96 recites the elected species of isobornyl (meth)acrylate, and claim 100

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encompasses the instantly elected species of isobutyl acrylate, and claim 110 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '698 claims.

As set forth above, claims 77-80, 83-94, 97-107, and 109-161 are directed to an invention not patentably distinct from claims 78-159 of commonly assigned 10/528,698. Specifically, see above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 10/528,698, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

U.S. Patent Application No. 10/528,699



Claims 77-80, 83-94, 97-107, and 109-161 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 78-159 of copending Application No. 10/529,699. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '699 claims renders obvious that of the instant claims. The difference between the two claim sets is that the '699 claims do not recite a transfer index of the block polymer. However, the transfer index the composition would be optimized by the ordinary artisan. Furthermore, each application recites the same monomer components and architecture. Thus, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the '699 application would meet the instant limitations and vice versa. It is noted that '699 claim 91 recites the elected species of isobornyl (meth)acrylate, and claim 125 encompasses the instantly elected species of isobutyl acrylate, and claim 132 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '699 claims.

As set forth above, claims 77-80, 83-94, 97-107, and 109-161 are directed to an invention not patentably distinct from claims 78-159 of commonly assigned 10/528,699.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 10/528,699, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting

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inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

U.S. Patent Application No. 10/529,264

Claims 77-80, 83-94, 97-107, and 109-161 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-56 of copending Application No. 10/528,264. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '264 claims renders obvious that of the instant claims. The difference between the two claim sets is that the '264 claims do not recite a mean gloss. However, the mean gloss would be optimized by the skilled artisan preparing lip or eye makeup products comprising the instantly claimed polymers. Furthermore, since the mean gloss is an inherent property of a given polymer and since each application recites the same monomer components and polymer architecture, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the '264 application would meet the mean gloss limitations and vice versa. It is noted that '264 claim 23 recites the

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elected species of isobornyl (meth)acrylate, claim 27 encompasses the instantly elected species of isobutyl acrylate, and claim 36 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '264 claims.

As set forth above, claims 77-80, 83-94, 97-107, and 109-161 are directed to an invention not patentably distinct from claims 1-56 of commonly assigned 10/529,264. Specifically, see above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 10/529,264, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

U.S. Patent Application No. 10/529,218

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Claims 77-80, 83-94, 97-107, and 109-161 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 80-165 of copending Application No. 10/529,218. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the '218 claims anticipates or renders obvious that of the instant claims. The difference between the two claim sets is that the '218 claims do not recite that the composition has a transfer index of less than or equal to 40 out of 100. Regarding this limitation, the transfer index (i.e. transfer resistance) would be optimized by the skilled artisan. As taught by Anton, the "hard" portions of the polymers taught are responsible for shine of the polymer. Thus, it would be obvious to an ordinary artisan to optimize the gloss of the lipstick formulation. Since each application recites the same monomer components and architecture, in the absence of evidence to the contrary, it is reasonable that the compositions claimed in the instant application would meet the '218 limitation and vice versa. It is noted that '218 claim 97 recites the elected species of isobornyl (meth)acrylate, claim 108 encompasses the elected species of isobutyl acrylate, and claim 135 recites acrylic acid, the elected species for the additional monomer. Thus, the scope of the two claim sets is substantially identical, and the entire scope of the instant claims is rendered obvious over the '218 claims.

### ***Response to Arguments***

Applicants have stated that they agree with the double patenting rejections (response, p. 35) and plan to file terminal disclaimers upon indication of allowable subject matter.

Since no terminal disclaimers have been filed at this time, the double patenting rejections are maintained.

### ***NEW GROUNDS OF REJECTION***

#### ***Claim Rejections - 35 USC § 112 (1<sup>st</sup> Paragraph) (New Grounds of Rejection)***

**Claims 104-107 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The response did not point out where support for amended 104-107 could be found in the originally filed disclosure. Support for the amendments to these claims (i.e. the deletion of the term "active material") was not found throughout the specification or original claims. When filing an amendment an applicant should show support in the original disclosure for new or amended claims. See MPEP 714.02 and 2163.06 ("Applicant should therefore specifically point out the support for any amendments made to the disclosure."). Instant claims 104-107 now recite limitations, which were not clearly disclosed in the specification as filed, and now change the scope of the instant disclosure as filed. Such limitations recited in amended claims 104-107, which did not appear in the specification, as filed, introduce new concepts and violate the description requirement of the first paragraph of 35 U.S.C 112. Applicant is required to provide

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sufficient written support for the limitations recited in present claims 104-107 in the specification or claims, as-filed, or remove these limitations from the claims in response to this Office Action.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 77-80, 83-84, 86-94, 98-103, and 159-161 are rejected under 35 U.S.C. 103(a) as being unpatentable over MOUGIN (U.S. 2002/0115780; Filed May. 18, 2001; Ref. #7 on IDS dated Jul. 19, 2006) in view of FRECHET (U.S. 6,663,855; Filed Oct. 3, 2001; Ref. # 63 on IDS dated Mar. 10, 2009) and MELCHORS (U.S. 6,531,535; Filed Mar. 25, 2002; Ref. #61 on IDS dated Mar. 23, 2009)**

Mougin discloses cosmetic compositions comprising film-forming block ethylenic copolymers comprising at least one rigid block having a glass transition temperature ( $T_g$ ) greater than or equal to 20°C and at least one flexible block having a  $T_g$  of less than 20°C (abstract; claim 1). Mougin teaches that each block consists of one or more different monomer and may be a random copolymer (paragraph [0038]). These copolymers are present in a cosmetically acceptable organic liquid medium (e.g. an oil) (paragraphs [0099] and [0100]) and are useful in a variety of cosmetic compositions (paragraph [0130] and [0131]). Mougin teaches that these polymers increase the staying power of make-up compositions including those for keratin materials (paragraphs [0007] and [0012]) and produce cosmetics that remain glossy and do not wear (Example 4). Furthermore, Mougin teaches monomers for use in the blocks of the copolymer that are substantially identical to those claimed in the instant application (paragraphs [0047]-[0097]). For example, Mougin explicitly teaches the use of isobutyl acrylate (elected species) (paragraph [0084]) and allows for C1-20 alkyl (meth)acrylates containing a linear, branched, or cyclic chain (paragraphs [0070] and [0084]) (which

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would encompass applicants' elected species of isobornyl (meth)acrylate). Mougin teaches that for one example of such a polymer, the number average molar mass is 51,900 and the weight-average molar mass is 114,500 (paragraph [0143]).

1. Frechet discloses cosmetic compositions comprising linear block copolymers formed by a core polymer surrounded by two or more flanking polymers (abstract; col. 3, lines 52-57). Frechet teaches that the flanking polymers may be different from each other in terms of their composition and/or molecular weight (col. 6, lines 35-37) and teaches that the core and flanking polymers may comprise different monomers or may have one or more monomers in common (col. 6, lines 54-56). Frechet teaches that the  $T_g$  value of the core polymer is -200-150 °C (most preferably from -75-50 °C) and is different from that of the flanking polymers, which typically have  $T_g$  values of 0-300 °C (more preferably from 30-150 °C (col. 4, lines 21-36). In line with the teachings of Mougin, Frechet teaches the importance of the polymers having both hard and soft blocks (i.e. high and a low  $T_g$  portions) (col. 4, lines 33-36). Frechet teaches that one or more blocks can be random copolymer blocks and the overall polymer may have a variety of architectures such as A-R-B-A or A-R-B-R-A, where R is a random block of monomers A and B or of monomers B and C or more monomers. Moreover, the random block can vary in composition or size with respect to the overall block copolymer (col. 10, lines 25-44).

2. Mougin does not disclose the mean gloss or the transfer index of the compositions. However, it is noted that "transfer index" is a measurement of the transfer resistance of the composition as evidenced by paragraphs [0036]-[0037] of the



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instant specification. Since it is an object of the Mougin's compositions to provide high transfer resistance (i.e. staying power and wear resistance) it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to formulate these compositions with a low transfer index. Furthermore, if the artisan wished to prepare a make-up composition with shine (e.g. a lip or nail cosmetic), it would have been *prima facie* obvious to further formulate the composition with a high mean gloss. Doing so is completely in line with the teachings of Mougin (e.g. Example 4).

3. The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When, as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise.

4. Neither Mougin nor Frechet disclose the optimal polydispersity range of their polymers. It is the examiner's position that it would have been obvious and fully within the purview of one having ordinary skill in the art to control the optimum molecular weight, polydispersity, polymer composition and architectures of the resultant block copolymer product by varying experimental parameters such as source, amount, and solvation of catalyst/initiators/control agents, polymerization temperature and time, etc., as known in the art and taught by the references referred to by Mougin (paragraphs [0020]-[0028]). Nonetheless, one would have looked to the art to ascertain an acceptable polydispersity range for the polymers. Melchioris discloses copolymer

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compositions with the object of providing coating compositions with high resistance to solvents, water, and environmental influences with very good optical properties (gloss) and mechanical properties (hardness, flexibility), which can be applied in a wide range of fields (paragraphs [0013], and [0037]). Melchior teaches that polydispersity values of 2.9-3.5 are acceptable to achieve the objects of the invention Table 1.

5. Frechet teaches that it is known in the art that the selection of macromers with different physical and chemical properties such as solubility and  $T_g$  value is a means to select the desired overall polymer properties (col. 1, lines 25-33). Frechet further teaches that block copolymers are advantageous over graft copolymers since the polymer architecture can be controlled more readily, and that this is particularly important when designing polymers with segments of distinct physical and chemical properties for particular applications (col. 1, lines 48-54). Frechet teaches that the polymers can be readily tailored to a particular application by changing the chemical composition (e.g. the types of monomers and their proportions) to optimize the physical properties such as solubility and  $T_g$  value (col. 2, lines 44-49; col. 6, lines 13-27).

6. In light of these teachings, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to prepare a polymer arranged with a first block and a second block connected by an intermediate block comprising a random copolymeric block having both types of monomers, to provide a suitable polymer compound in Mougin's invention. One would have been motivated to do so since the teaching of Mougin suggests such an arrangement, and since one of ordinary skill in the art would recognize that including a block comprising monomers from the "hard" and

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"soft" portions provides an additional means (besides the weight % of each block) to manipulate the overall properties of the polymer, as taught by Frechet. Further, it is well within the skill of ordinary artisan to select the appropriate properties of a copolymer for a given formulation. Therefore if an artisan wanted to produce a polymer with both high flexibility and shine qualities, one would have been motivated to arrange the "hard" and "soft" polymer blocks such that they were connected by an intermediate block as suggested by Mougin and taught by Frechet. Thus, the combined teachings of Mougin, Frechet, and Melchior render claims 77-80, 83-84, 86-94, 98-103, and 159-164 obvious.

### ***Response to Arguments***

Applicants' arguments have been fully considered but are not persuasive. Applicants argue that Mougin does not anticipate the instant claims.

This argument is moot in light of the new grounds of rejection presented herein.

Applicants present two Wikipedia links to support the allegation that low polydispersity index means less than 2.5.

Wikipedia is an open source application that can be edited by anyone with access to a computer. As such, Wikipedia links are not a valid sources as evidence before the USPTO. Even if, *in arguendo*, these links were valid evidence, neither states that "low" means less than 2.5 as would be recognized by the ordinary artisan. Rather "low" is a relative term that can be interpreted subjectively by an artisan, who could reasonably adopt the view that any polydispersity index value of less than 10 (or any other subjective and arbitrary value) could be considered "low".

**Claims 77-80, 83-94, 97-107, and 109-161 are rejected under 35 U.S.C. 103(a) as being unpatentable over ANTON (U.S. Patent No. 6,153,206; Issued Nov. 28, 2000; Reference # 35 on IDS dated Jul. 19, 2006) in view of FRECHET (U.S. 6,663,855; Filed Oct. 3, 2001; Ref. # 63 on IDS dated Mar. 23, 2009) and MELCHIORS (U.S. 6,531,535; Filed Mar. 25, 2002; Ref. #61 on IDS dated Mar. 23, 2009).**

7. Anton discloses cosmetic compositions comprising a non-elastomeric film-forming synthetic ethylenic block polymer in a cosmetically acceptable liquid medium (e.g. an oil) (abstract; col. 2, lines 9-23 and 56; col. 6, lines 7-10; claim 1). Anton teaches that the polymer of the invention comprises portions having a low glass transition temperature ( $T_g$ ) and portions having a high  $T_g$  and teaches that one block is preferably constructed from isobornyl methacrylate (elected species) (col. 4, lines 5-27; Example 1). This block has a glass transition temperature,  $T_g$  of 76-120 °C. Anton also teaches that a second block of the polymer is constructed from monomers, which when polymerized have a glass transition temperature,  $T_g$  of -10 to 75 °C (abstract). Anton teaches that the oil component is a volatile or nonvolatile oil (i.e. an organic liquid medium) (col. 6, lines 8-10 and 17-19). Anton teaches that the compositions are useful as shiny, transfer resistant cosmetics (col. 1, lines 60-67; Example 1).

8. Anton further teaches that the polymer of the invention may be a copolymer, a terpolymer (i.e. a polymer of three different monomers), or have any number of different units in addition to the first and second repeat units (col. 2, lines 58-62; col. 4, lines 28-60). In particular, Anton teaches block terpolymers and teaches that the repeating units

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are monomer units which are present more than one time in the polymer chain and can be present in either repetitive sequence or in random sequence with other monomer units (col. 3, lines 21-24). Anton presents a number of suitable polymer architectures (table in col. 4). Anton also emphasizes the importance of having "hard" and "soft" portions (i.e. portions having different glass transition temperatures,  $T_g$ ) in the polymer to maintain both flexibility and shine of the composition (col. 2, lines 51-58).

9. Frechet discloses cosmetic compositions comprising linear block copolymers formed by a core polymer surrounded by two or more flanking polymers (abstract; col. 3, lines 52-57). Frechet teaches that isobutyl acrylate (elected species) is a preferred monomer of the invention (col. 8, lines 10 and 65-66; col. 9, lines 38-39). Frechet teaches that the flanking polymers may be different from each other in terms of their composition and/or molecular weight (col. 6, lines 35-37) and teaches that the core and flanking polymers may comprise different monomers or may have one or more monomers in common (col. 6, lines 54-56). Frechet teaches that the  $T_g$  value of the core polymer is -200-150 °C (most preferably from -75-50 °C) and is different from that of the flanking polymers, which typically have  $T_g$  values of 0-300 °C (more preferably from 30-150 °C (col. 4, lines 21-36). In line with the teachings of Anton, Frechet teaches the importance of the polymers having both hard and soft blocks (col. 4, lines 33-36). Frechet teaches that one or more blocks can be random copolymer blocks and the overall polymer may have a variety of architectures such as A-R-B-A or A-R-B-R-A, where R is a random block of monomers A and B or of monomers B and C or more

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monomers. Moreover, the random block can vary in composition or size with respect to the overall block copolymer (col. 10, lines 25-44).

10. Neither Anton nor Frechet discloses the polydispersity of their polymers. It is the examiner's position that it would have been obvious and fully within the purview of one having ordinary skill in the art to control the optimum molecular weight, polydispersity, polymer composition and architectures of the resultant block copolymer product by varying experimental parameters such as source, amount, and solvation of catalyst/initiators/control agents, polymerization temperature and time, etc., as taught by the references referred to by Anton (col. 5, line 64 to col. 6, line 6). Nonetheless, one would have looked to the art to ascertain an acceptable polydispersity value for the polymers. Melchioris discloses copolymer compositions with the object of providing coating compositions with high resistance to solvents, water, and environmental influences with very good optical properties (gloss) and mechanical properties (hardness, flexibility), which can be applied in a wide range of fields (paragraphs [0013], and [0037]). Melchioris teaches that polydispersity values of 2.9-3.5 are acceptable to achieve the objects of the invention Table 1. Thus, the combined teachings of Anton, Frechet, and Melchioris render claims 75 and 76 obvious.

11. Frechet teaches that it is known in the art that the selection of macromers with different physical and chemical properties such as solubility and  $T_g$  value is a means to select the desired overall polymer properties (col. 1, lines 25-33). Frechet further teaches that block copolymers are advantageous over graft copolymers since the polymer architecture can be controlled more readily, and that this is particularly

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important when designing polymers with segments of distinct physical and chemical properties for particular applications (col. 1, lines 48-54). Frechet teaches that the polymers can be readily tailored to a particular application by changing the chemical composition (e.g. the types of monomers and their proportions) to optimize the physical properties such as solubility and  $T_g$  value (col. 2, lines 44-49; col. 6, lines 13-27).

12. In light of these teachings, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to prepare a polymer arranged with a first block and a second block connected by an intermediate block comprising both types of monomers, to provide a suitable polymer compound. One would have been motivated to do so since the teaching of Anton allows for and suggests such an arrangement, and since one of ordinary skill in the art would recognize that including a block comprising monomers from the "hard" and "soft" portions provides an additional means (besides the weight % of each block) to manipulate the overall properties of the polymer, as taught by Frechet. Further, it is well within the skill of ordinary artisan to select the appropriate properties of a copolymer for a given formulation. Therefore if an artisan wanted to produce a polymer with both high flexibility and shine qualities, one would have been motivated to arrange the "hard" and "soft" polymer blocks such that they were connected by an intermediate block as suggested by Anton and taught by Frechet.

13. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to formulate a polymer with a core and flanking blocks having different compositions and  $T_g$  values as taught by Frechet, to provide a transfer

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resistant makeup composition using isobornyl methacrylate as a preferred monomer as taught by Anton and isobutyl acrylate as a preferred monomer as taught by Frechet and to formulate the polymer with a polydispersity of 2.9-3.5 as taught by Melchiors. One would have had a high expectation of success given that each of the references are concerned with similar problems in the art, namely providing compositions with desirable cosmetic properties. The skilled artisan, in possession of Anton, Frechet, and Melchiors could have arrived at the instantly claimed invention by no more than routine experimentation. Furthermore, the MPEP states that the selection of known materials based on their suitability for their intended uses is *prima facie* obvious. "Reading a list and selecting a known compound to meet known requirements is no more ingenious than selecting the last piece to put in the last opening in a jig-saw puzzle." 325 U.S. at 335, 65 USPQ at 301. See MPEP § 2144.07. In the instant case, applicants are claiming a combination of known monomers, all of which are taught by Anton and Frechet, for the same purpose as that which has been taught in the art.

14. Anton does not measure the mean gloss or transfer index of the compositions. While Anton does not measure these properties of the compositions under the highly specialized conditions described in the instant specification (paragraphs [0017]-[0036], it is an object of Anton's cosmetic compositions to provide a shiny (i.e. glossy) finish and high transfer resistance (col. 1, line 60 to col. 2, line 5; Example 1). Thus, it is reasonable that the shiny, transfer resistant compositions taught by Anton (e.g. Example 1) would fulfill this requirement, and it would certainly have been *prima facie*



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obvious to one of ordinary skill in the art to formulate the polymers taught by Anton in order to achieve these results, reading on claims 87-94.

15. The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When, as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise.

16. Anton teaches transfer resistant lipsticks (Example 1) and, in combination with Frechet, teaches the use of the same monomer components of the block polymers as those instantly claimed. Thus, the compositions of Anton are non-elastomeric. Anton does not disclose the solubility of the block polymers, but in combination with Frechet the references teach the use of the same monomer components of the block polymers as those instantly claimed (see below). Therefore, it is reasonable that the polymers taught by the combination of Anton and Frechet will not be soluble at an active material content of at least 1% by weight in water.

17. Anton teaches that the molecular weight average of the polymer is from 5,000 to 300,000, but is preferably from 5,000 to 50,000 (col. 5, lines 23-28). Anton exemplifies a composition comprising a polymer having a molecular weight of 27,100 (Example 1). Anton teaches that the preferred compositions comprise from 3-30% of the copolymer (col. 11, line 10), and embodies the copolymer in the range of 19-20% by weight of the composition (Example 1).

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18. As discussed above, Anton teaches that the oil component is a volatile or nonvolatile oil and exemplifies 6% isododecane in the transfer resistant lipstick composition (Example 1). Anton also teaches that the nonvolatile oil may be a hydrocarbon-based oil (col. 7, lines 44-45) or nonvolatile silicone oil (col. 7, line 54-67). Anton exemplifies 8% of the nonvolatile oil fluoro octyldodecyl meadowfoamate (Example 1).

19. Anton teaches that the preferred compositions of the invention comprise 1-30% of a wax (col. 9, lines 41-49; col. 11, lines 8-21), and exemplifies a composition comprising 7% synthetic wax (Example 1).

20. Furthermore, since Anton teaches block terpolymers and teaches various configurations of the blocks in the polymers (col. 3, lines 21-24; table in col. 4) including homopolymeric and random copolymer blocks (col. 4, lines 28-60), it would have been obvious to an ordinary artisan to produce a polymer having homopolymeric blocks of any of the monomers taught by Anton or Frechet in any of the configurations taught by Anton or Frechet.

21. Anton does not disclose the compatibility of the various polymer blocks, and does not disclose the solubility of the blocks in the major organic liquid medium of the composition, which is how mutual incompatibility is defined in the instant specification (paragraph [0090]). Nonetheless, since the combination of Anton and Frechet teaches an identical polymer composition to that instantly claimed, including the same types of monomers, and blocks thereof, it is reasonable that these blocks are mutually incompatible as defined in the instant specification.

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22. Regarding claims 98-103, Anton teaches that the molecular weight average of the polymer is from 5,000 to 300,000, but is preferably from 5,000 to 50,000 (col. 5, lines 23-28). Anton exemplifies a composition comprising a polymer having a molecular weight of 27,100 (Example 1), reading on instant claims 98-103.

23. Regarding claims 104 and 105, Anton teaches that the preferred compositions comprise from 3-30% of the copolymer (col. 11, line 10), and embodies the copolymer in the range of 19-20% by weight of the composition (Example 1), reading on claims 104 and 105.

24. As discussed above, Anton teaches that the oil component is a volatile or nonvolatile oil, including, *inter alia*, hydrogenated polyisobutene (col. 7, line 44), phenyl trimethicone (col. 7, line 60), and caprylic/capric triglycerides (col. 7, line 31), all of which are "glossy oils" as defined in paragraphs [0042]-[0056] of the instant specification, reading on claims 106 and 107.

25. Anton teaches that the first repeat unit has a  $T_g$  of about -10-75°C and the second repeat unit has a  $T_g$  of about 76-120°C (abstract; col. 4, line 62 to col. 5, line 1). Specifically, Anton embodies a polymer comprising blocks of isobornyl methacrylate ( $T_g$  = 110°C) and isobutyl methacrylate ( $T_g$  = 53°C) (Example 1) and teaches that a variety of other monomers are useful in the polymers, for instance n-butylmethacrylate ( $T_g$  = 20°C, which has a  $T_g$  between 20°C and 40° as defined in paragraph [0152] of the instant specification), hexyl methacrylate ( $T_g$  = -5°C) (col. 3, line 56 to col. 4, line 38; col. 5, lines 33-54, see the second table in col. 5). Furthermore, Anton teaches that preferable methacrylate esters useful for the first monomer are those obtained by

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esterification of methacrylic acid with an aliphatic alcohol of 2 to 30 carbon atoms (col. 3, lines 57-61). Thus, it would be obvious to an ordinary artisan to use any combination of these monomers rendering claims 115-117 obvious.

26. Anton teaches that relative to the polymer, the portions of the first and second repeat units can vary from 2-99% by weight of the first repeat unit to 1-98% by weight of the second repeat unit and vice versa (col. 5, lines 3-32). Thus, it would be obvious to an ordinary artisan to use any percentage within this range for each of the blocks. As discussed above, both Anton teaches that manipulating the percentages of the blocks alters the properties of the final polymer. Thus, the skilled artisan would be motivated to do so to optimize the properties of the polymer for a particular formulation. Therefore, claims 123, 124, 130, 131, 136, 137, 142, 143, 148, and 149 are obvious over the combination of Anton and Frechet.

27. Regarding claims 150-156, it is noted that Applicants have elected the species acrylic acid. Since acrylic acid does not contain a silicon atom, it is therefore presumed that acrylic acid is a hydrophilic monomer. Anton teaches a variety of monomers useful for the various polymer blocks of the polymer (col. 3, line 56 to col. 4, line 27; second table in col. 5). As stated above, it would be *prima facie* obvious to an ordinary artisan to use any combination of these monomers as defined by the teachings of Anton. Furthermore, as discussed above, Anton teaches block terpolymers and teaches that the repeating units are monomer units which are present more than one time in the polymer chain and can be present in either repetitive sequence or in random sequence *with other monomer units* (col. 3, lines 21-24). Furthermore, Anton describes polymer

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architectures comprising at least three different monomers (col. 4, lines 28-60) and teaches that the final polymer may contain, in addition to the first and second repeat units, other monomeric units such as ethylenically unsaturated monomer units and silicon repeat units. Thus, it would have been *prima facie* obvious to an ordinary artisan at the time of the invention to include such an additional monomer (in addition to isobornyl methacrylate and, a second monomer having a lower  $T_g$ ), in the polymer as taught by Anton. While Anton teaches methacrylic acid and esters thereof, acrylic acid itself is not disclosed.

28. However, Frechet discloses that both methacrylic acid and acrylic acid are highly preferred monomers in the block polymers of the invention particularly when copolymers are used (col. 7, lines 6-9; col. 8, lines 8-10 and 58; col. 9, line 15). One of ordinary skill in the art would be motivated to substitute acrylic acid for methacrylic acid due to the similarities of these compounds and since Frechet establishes them as functional equivalents. Thus, the artisan would have a high expectation of success by substituting one functional equivalent for another.

29. While Anton does not disclose the weight % of the additional monomer relative to the first and/or second blocks, it is the examiner's position that it would be well within the skill of the ordinary artisan to adjust the amount of the additional monomer based on the teachings of Anton (see upper table in col. 5). One would be motivated to adjust the amount of the additional monomer for the reasoning presented above regarding the intermediate block, which is to achieve the optimal and desired properties of the

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polymer through manipulation of the types and configurations of the monomers therein as taught by both Anton and Frechet.

30. Anton (col. 9, lines 17-27; Example 1, wherein D&C and FD&C lakes are dyestuffs) teaches that the cosmetic compositions include other cosmetic ingredients including pigments and dyes, reading on claim 158.

31. Anton teaches that the cosmetic compositions of the invention are for application to the skin (i.e. keratin material) or lips and may be in the form of an anhydrous stick or a composition that has a consistency such that it can be molded into the form of a stick (col. 2, lines 26-41). One of ordinary skill in the art would recognize that such moldable compositions can be pastes, as is typical of anhydrous lipsticks, for example. In light of these teachings, it would have been *prima facie* obvious to an ordinary artisan to produce the cosmetic compositions of Anton in the form of pastes. One would be motivated to produce a paste form since the preferred embodiment of Anton is a lipstick (i.e. an anhydrous paste). Thus, claims 159-164 are obvious over Anton and Frechet.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, in the absence of evidence to the contrary, the invention

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as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references.

### ***Response to Arguments***

Applicants' arguments have been fully considered but are not persuasive. Applicants argue that Anton does not disclose sequential polymerization.

This argument is unpersuasive for at least several reasons. First, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., sequential polymerization) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Second, applicant has not demonstrated that such polymerization is the *only* way to form such polymers. Rather, applicants state that one *can* perform sequential polymerization to make the claimed polymers. Third, the controlled polymerization recited by Anton encompasses sequential polymerization.

### ***Summary/Conclusion***

Claims 77-80, 83-94, 97-107, and 109-161 are rejected; claims 1-76, 81-82, 95-96, 108, and 162-164 are cancelled.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Orwig whose telephone number is (571)270-5869. The examiner can normally be reached Monday-Friday 7:00 am-4:00 pm (with alternate Fridays off). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached Monday-Friday 8:00 am-5:00 pm at (571)272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KSO

/David J Blanchard/  
Primary Examiner, Art Unit 1643